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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known

Application Number	09/609,622
Filing Date	July 5, 2000
First Named Inventor	Gregory D. Sunvold
Group Art Unit	1614
Examiner Name	
Attorney Docket Number	IAM 0602 PA

Sheet 1 of 5

## U.S. PATENT DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
gml		5,654,028		Christensen et al.	08/05/1997	
gml		5,846,581		Catron	12/08/1998	
gml		5,626,849		Hastings et al.	05/06/1997	
gml		5,540,917		Isler et al.	07/30/1996	
		<del>5,030,458</del>		<del>Shug et al.</del>	<del>07/09/1991</del>	
gml		4,656,191		Fanelli	04/07/1987	
gml		4,883,672		Shug et al.	11/28/1989	
gml		5,030,458		Shug et al.	07/09/1991	
gml		5,192,804		Blum et al.	03/09/1993	
gml		5,730,988		Womack	03/24/1998	
gml		5,869,528		Cavazza	02/09/1999	
gml		5,895,652		Giampapa	04/20/1999	
gml		5,616,569		Reinhart	04/01/1997	
gml		5,605,893		Kaufman	02/25/1997	
gml		5,576,306		Dressman et al.	11/19/1996	
gml		5,585,366		Gallagher et al.	12/17/1996	
gml		5,175,156		Boynton et al.	12/29/1992	
gml		5,087,623		Boynton et al.	02/11/1992	
gml		4,828,846		Rasco et al.	05/09/1989	
gml		5,501,857		Zimmer	03/26/1996	

## FOREIGN PATENT DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
gml			CN 1135850A		Xianhe Food Group Co Ltd	11/20/1996		
gml			WO 89/10065 A		Shug et al.	11/02/1989		
gml			DE 39 04 109 A		Sigma-Tau Industrie et al.	08/24/1989		
gml			WO 92/16218		Lonza Inc.	10/01/1992		
gml			FR 2 735 331 A		Mania Venance	12/20/1996		
gml			JP 03094655		Otsuka Pharmaceut Co Ltd	04/19/1991		

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Sheet 2 of 5

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First Named Inventor	Gregory D. Sunvold
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Attorney Docket Number	IAM 0602 PA

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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SM		SUNVOLD, G. et al., "EFFECT OF FERMENTABLE FIBER CONSUMPTION BY THE DOG ON NITROGEN BALANCE AND FECAL MICROBIA NITROGEN EXCRETION" FASEB Journal, US, Fed. of American Soc. For Experimental Biology, Bethesda, MD, Vol. 10, 1 January 1996, pg. 4133-4134	
SM		MURRAY, S.M. et al., "CEREAL FLOUR INCORPORATION INTO PREMIUM DIETS FED TO ILEAL CONNULATED DOGS" FASEB Journal, Vol. 11, 1997, pg. a414 XP002141558	
SM		HARRINGTON-MCGILL, S., "EAT RIGHT OR DIE YOUNG" 12 December 1996, pg. 1-2, XP002141559	
SM		MASSIMINO, S.P. et al., "GLUCOSE TOLERANCE IN OLD DOGS IS MODIFIED BY STARCH SOURCE" FASEB Journal, Vol. 13, 12 March 1999, pg. a375 XP002141557	
SM		BERGMAN et al., "Quantitative estimation of insulin sensitivity" American Physiological Society, 1979, pp. E-667-77, Vol. 236(6)	
SM		BERGMAN et al., "Physiologic Evaluation of Factors Controlling Glucose Tolerance in Man" J. Clin. Invest., 1981, pp. 1456-67, Vol. 68	
SM		MILLA et al., "Glycemic Response to Dietary Supplements in Cystic Fibrosis is Dependent on the Carbohydrate Content of the Formula" JPEN, 1996, pp. 182-86, Vol. 20, No. 3	
		<del>SUNVOLD, et al., "The Glycemic Response to Dietary Starch, Recent Advances in Canine-Feline Nutrition" 1998, pp. 423-434</del>	
SM		MCCARTY, M.F., "Promotion of Hepatic Lipid Oxidation and Gluconeogenesis as a Strategy for Appetite Control" Medical Hypotheses, Vol. 42, 1994, pp. 215-225	
SM		VAN KEMPEN, THEO A.T.G. et al., "Carnitine Affects Octanoate Oxidation to Carbon Dioxide and Dicarboxylic Acids in Colostrum-Deprived Piglets: In Vivo Analysis of Mechanisms Involved Based on CoA- and Carnitine-Ester Profiles" J. Nutr. 125, 1995, pp. 238-250	
SM		JI, H et al., "Atlantic Salmon (Salmo salar) Fed L-Carnitine Exhibit Altered Intermediary Metabolism and Reduced Tissue Lipid, but No Change in Growth Rate" J. Nutr. 126, 1996, pp. 1937-1950	

Source cannot be determined

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Sheet 3 of 5

## C m p l t i f K n o w n

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Attorney Docket Number	IAM 0602 PA

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GNL		OWEN, K.Q. et al., "Effect of L-Carnitine and Soybean Oil on Growth Performance and Body Composition of Early-Weaned Pigs" J. Anim. Sci. 74, 1996, pp. 1612-1619	
GNL		Abstract - SUNVOLD, G.D. et al., "Effect of dietary carnitine during energy restriction in the canine" FASEB Journal, Vol. 13, No. 4, Part 1, 1999, pp. A268	
GNL		Abstract - FREEMAN, L.M., "Interventional nutrition for cardiac disease" Seminars in Veterinary Medicine and Surgery (Small Animal), Vol. 13, No. 4, 1998, pp. 232-237	
GNL		Abstract - GROSS, K.L. et al., "Relationship of plasma carnitine levels in dogs and pigs fed supplemental dietary L-carnitine" Journal of Dairy Science, Vol. 81, No. Suppl. 1, 1998, pp. 186	
GNL		Abstract - GROSS, K.L. et al., "Effect of dietary carnitine or chromium on weight loss and body composition of obese dogs" Journal of Dairy Science, Vol. 81, No. Suppl. 1, 1998, pp. 175	
GNL		Abstract - KITTLESON, M.D. et al., "Results of the Multicenter Spaniel Trial: Taurine- and carnitine-responsive dilated cardiomyopathy in American Cocker Spaniels with decreased plasma taurine concentrations" Journal of Veterinary Internal Medicine, Vol. 11, No. 4, 1997, pp. 204-211	
GNL		Abstract - GWATHMEY, J.K. et al., "Pathophysiology of cardiomyopathies: Part II. Drug-induced and other interventions" Current Opinion in Cardiology, Vol. 9, No. 3, 1994, pp. 369-378	
GNL		Abstract - GRANDJEAN, D. et al., "Dietary supplementation with L-carnitine, vitamin C and vitamin B12 in sport dogs: Experimental study with sledge dogs" Recueil de Medecine Veterinaire de l'Ecole d'Alfort, Vol. 169, No. 7, 1993, pp. 543-551	
GNL		Abstract - MCMILLIN, J.B. et al., "INFLUENCE OF DIETARY FISH OIL ON MITOCHONDRIAL FUNCTION AND RESPONSE TO ISCHEMIA" Am. J. Physiol., Vol. 263, No. 5 Part 2, 1992, pp. H1479-H1485	
GNL		Abstract - GRANDJEAN, D et al., "ERGOGENIC NUTRITIONAL SUPPLEMENTATION IN EFFORTS OF SPORTING DOGS" Recl. Med. Vet. Ec. Alfort, Vol. 167, No. 7-8, 1991, pp. 753-761	
GNL		Abstract - IBEN, C., "Effect of L-carnitine in racing sledge dogs" Wiener Tierarztliche Monatsschrift, Vol. 85, No. 10, 1998, pp. 334-339	

Examiner Signature *Gregory D. Sunvold*

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Attorney Docket Number	IAM 0602 PA

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SM		Abstract - GOODWIN, J.K. et al., "The role of dietary modification and nondrug therapy in dogs and cats with congestive heart failure" Veterinary Medicine, Vol. 93, No. 10, 1998, pp. 919-926	
SM		Abstract - CHETBOUL, V. et al., "Use of Isulik (R), an L carnitine supplement, in canine dilated cardiomyopathy" Point Veterinaire, Vol. 29, No. 189, 1998, pp. 167-168	
SM		Abstract - GRANDJEAN, D. et al., "Physiopathological importance of L. carnitine in dogs" Recueil de Medecine Veterinaire, Vol. 173, No. 4/5/6, 1997, pp. 95-106	
SM		Abstract - JACOBS, G.J., "Treating cardiomyopathy in dogs and cats" Veterinary Medicine, Vol. 91, No. 6, 1996, pp. 544-564	
SM		Abstract - MCENTEE, K et al., "Clinical, electrocardiographic, and echocardiographic improvements after L-carnitine supplementation in a cardiomyopathic Labrador" Canine Practice, Vol. 20, No. 2, 1995, pp. 12-15	
SM		Abstract - COSTA, N.D. et al., "Case report: efficacy of oral carnitine therapy for dilated cardiomyopathy in boxer dogs" Journal of Nutrition, Vol. 124, No. 12 Suppl, 1994, pp. 2687S-2692S	
SM		Abstract - GRANDJEAN, D. et al., "Use of a nutritional supplement with L-carnitine, vitamin C and vitamin B12 in sporting dogs" Recueil de Medecine Veterinaire, Vol. 169, No. 7, 1993, pp. 543-551	
SM		Abstract - KEENE, B.W., "L-carnitine supplementation in the therapy of canine dilated cardiomyopathy" Vet Clin North Am Small Anim Pract, Vol. 21, No. 5, Sept. 1991, pp. 1005-9	
SM		Abstract - HAMLIN, R.L., "Nutrition and the heart" Vet Clin North Am Small Anim Pract, Vol. 19, No. 3, May 1989, pp. 527-38	
SM		Abstract - BIRKHAHN, R.H. et al., "Alternate or supplemental energy sources" JPEN J Parenter Enteral Nutr, Vol. 5, No. 1, Jan-Feb 1981, pp. 24-31	
SM		Abstract - SUZUKI, Y. et al., "Effects of L-carnitine on ventricular arrhythmias in dogs with acute myocardial ischemia and a supplement of excess free fatty acids" Jpn Circ J, Vol. 45, No. 5, May 1981, pp. 552-9	

Examiner Signature	<i>Sunvold, G.D.</i>	Date Considered	1/12/01
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		<del>LIANG et al., "Purina CNM Veterinary Product Guide, 1994" J. Dairy Science, Vol. 53, 1970, pp. 230-241</del> Rabston Purina Company, USA, pp 1-27	
gml		KUMAR, M.V. et al., "Differential effects of retinoic acid on uncoupling protein-1 and leptin gene expression" J. Endocrinol, May 1998, pp. 1-7	
gml		WOLF, D. P., "A Regulatory Pathway of Thermogenesis in Brown Fat Through Retinoic Acid" Nutrition Reviews, Vol. 53, No. 8, 1995, pp. 230-231	
gml		ALVAREZ, R. et al, "A Novel Regulatory Pathway of Brown Fat Thermogenesis" J. of Biol. Chem. , 1995, pp. 5666-5673	
gml		SURYAWAN, A. et al., "Effect of Retinoic Acid on Differentiation of Cultured Pig Preadipocytes" J. Anim. Sci., 1997, pp. 112-117	
gml		PUIGSERVER, P. et al., "In vitro and in vivo induction of brown adipocyte uncoupling protein (thermogenin) by retinoic acid" Biochem J., 1996, pp. 827-833	
gml		FACCHINI, F. et al., "Relation between dietary vitamin intake and resistance to insulin-mediated glucose disposal in healthy volunteers 1-3" American J Clin Nutr, 1996, pp. 946-949	
gml		Abstract - SCARPACE, P.J. et al., "Thermoregulation with age: role of thermogenesis and uncoupling protein expression in brown adipose tissue" Proc Soc Exp Biol Med, February 1994, Vol 205, no 2, pp. 154-161	
gml		CASSARD-DOULCIER et al., "In Vitro Interactions in between Nuclear Proteins and Uncoupling Protein Gene Promoter Reveal Several Putative Transactivating Factors Including Ets1, Retinoid X Receptor, Thyroid Hormone Receptor, and a CACCC Box-binding Protein" J. of Biol. Chem., 1994, pp. 24335-24342	

Examiner  
Signature

*Sunvold G*

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<b>Attorney Docket Number</b>	IAM 0602 PA

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